

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows. The claims are in the format as required by 35 C.F.R. § 1.121.

1. (Currently amended) A computer-readable medium storing a generic revenue management data model accessible by a revenue management software program being executed on a data processing system in a network, comprising:
  - a first data structure containing a representation of a network demand;
  - a second data structure containing a representation of a network resource;
  - a third data structure containing a representation of a resource bundle, wherein the resource bundle represents a group of resources combined to form a product or service; and
  - a fourth data structure containing a representation of a resource bundle to demand link; wherein the revenue management software program is operable to perform at least one network optimization based on information stored in the first data structure, the second data structure, the third data structure, and the fourth data structure.
2. (Currently amended) The ~~data model~~ computer-readable medium of Claim 1, wherein each resource bundle to demand link associates the resource bundle to the network demand.
3. (Currently amended) The ~~data model~~ computer-readable medium of Claim 1, wherein the second data structure further includes:
  - a representation of the maximum capacity of the network resource;
  - a representation of the physical capacity of the network resource; and
  - a representation of the expected use capacity of the network resource.
4. (Currently amended) The ~~data model~~ computer-readable medium of claim 1, wherein the fourth data structure further comprises:

a representation of an optimal quantity; and  
a representation of an optimal price.

5. (Currently amended) The data model of Claim 1, wherein the ~~data model~~  
network is ~~applied to an~~ airline industry network.

6. (Currently amended) The ~~data model~~ computer-readable medium of Claim 5,  
wherein the network demand further comprises:  
an itinerary demand; and  
a fare class demand.

7. (Currently amended) The ~~data model~~ computer-readable medium of Claim 6,  
wherein the network resource includes a seat on a flight leg.

8. (Currently amended) The ~~data model~~ computer-readable medium of Claim 7,  
wherein the resource bundle includes an origin to destination itinerary.

9. (Currently amended) The ~~data model~~ computer-readable medium of Claim 8,  
wherein the resource bundle to demand link associates the origin to destination  
itinerary with the network demand.

10. (Currently amended) The ~~data model~~ computer-readable medium of Claim 1,  
further comprising a fifth data structure representing a resource demand.

11. (Currently amended) The ~~data model~~ computer-readable medium of Claim 10,  
wherein the resource demand represents a total demand on the resource.

12. (Currently amended) The ~~data model~~ computer-readable medium of Claim 1,  
wherein:

the first data structure further contains a representation of a plurality of network

demands;

the second data structure further contains a representation of a plurality of network resources;

the third data structure further contains a representation of a plurality of resource bundles; and

the fourth data structure further contains a representation of a plurality of resource bundle to demand links; wherein the revenue management software program is operable to determine which of the plurality of resource bundles handle which of the plurality of demands in the network.

13-21. (Cancelled).

22. (Currently amended) A system for representing revenue management problems in a network, comprising:

a computer readable medium; ~~and embodying a set of software instructions contained upon the computer readable medium~~, wherein the software instructions are executable to:

store on a tangible storage medium a representation of a network demand in a first data structure based on a generic revenue management data model;

store on the tangible storage medium a representation of a network resource in a second data structure based on the generic revenue management data model;

store on the tangible storage medium a representation of a resource bundle in a third data structure based on the generic revenue management data model, wherein the resource bundle represents a group of resources combined to form a product or service; and

store on the tangible storage medium a representation of a resource bundle to demand link in a fourth data structure based on the generic revenue management data model, wherein the resource bundle to demand link associates ~~a~~ the resource bundle with ~~a~~ the network demand; and

perform at least one network optimization to derive an optimal network-wide solution for the network based on information stored in the first data structure, the second data structure, the third data structure, and the fourth data structure.

23. (Currently amended) The system of Claim 4-22, wherein the network demand includes:

an itinerary demand; and  
a fare class demand.

24. (Currently amended) The system of Claim 22, wherein the software instructions are further executable to:

store a representation of a maximum capacity for the network resource;  
store a representation of ~~the~~ a physical capacity of the network resource; and

store a representation of ~~the~~an expected use capacity of the network resource.

25. (Original) The system of claim 22, wherein the software instructions are further operable to:

store a representation of an optimal quantity in the fourth data structure; and  
store a representation of an optimal price in the fourth data structure.

26. (Original) The system of Claim 22, wherein the software instructions are further operable to store a representation of a resource demand in a fifth data structure.

27. (Currently amended) The system of Claim 26, wherein the software instructions are further operable to generate the resource demand based on ~~the~~results of ~~a~~the network optimization.

28. (New) A computer-implemented method for managing revenue in a network, comprising:

constructing a generic revenue management data model in a database or memory structure in the network, wherein the generic revenue management data model comprises

a first data structure for storing a representation of a set of network demands;

a second data structure for storing a representation of a set of network resources;

a third data structure for storing a representation of a set of resource bundles, wherein each resource bundle represents a group of resources combined to form a product or service; and

a fourth data structure for storing a representation of associations between the set of resource bundles represented in the third data structure and the set of network demands represented in the first data structure; and

mapping revenue management problem data to the database or the memory according to the generic revenue management data model.

29. (New) The computer-implemented method according to claim 28, wherein the generic revenue management data model allows data for multifarious revenue management problems in the network to be expressed in a uniform format.

30. (New) The computer-implemented method according to claim 28, further comprising:

applying one or more revenue management programs to the revenue management problem data stored in the generic revenue management data model to derive an optimal network-wide solution for the network.

31. (New) The computer-implemented method according to claim 28, further comprising:

splitting problem information into the revenue management problem data and optimization sequence data; and

based on the optimization sequence data, applying one or more revenue management programs to the revenue management problem data stored in the generic revenue management data model to derive an optimal network-wide solution for the network.

32. (New) The computer-implemented method according to claim 31, further comprising:

decomposing the network to determine how the optimal network-wide solution affects individual local resources.

33. (New) The computer-implemented method according to claim 32, wherein the generic revenue management data model further comprises a fifth data structure for storing a representation of demands placed on the individual local resources.

34. (New) The computer-implemented method according to claim 32, further comprising:

applying at least one revenue management program to the revenue management problem data stored in the generic revenue management data model to derive one or more locally optimal solutions.